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10/589,938

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Jessie Jianxin Zhao

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HOFFMANN & BARON, LLP  
6900 JERICO TURNPIKE  
SYOSSET, NY 11791

EXAMINER

WATTS, JENNA A

ART UNIT

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1781

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10/25/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |                                    |  |
|------------------------------|--------------------------------------|------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/589,938 | <b>Applicant(s)</b><br>ZHAO ET AL. |  |
|                              | <b>Examiner</b><br>Jenna A. Watts    | <b>Art Unit</b><br>1781            |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,4-9,11-21 and 25-32 is/are pending in the application.
- 4a) Of the above claim(s) 28-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4-9,11-21 and 25-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/2/2010 has been entered.

### ***Election/Restrictions***

2. Newly submitted claims 28-32 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: new method  
Claims 28-32 claim a method for preparing a batter composition comprising isolating an insoluble vegetable protein by thermal coagulation and mixing the insoluble vegetable protein with insoluble fibers. This is distinct from the product claims 1, 4-18 and other method claims 19-21 and 25-27, because the insoluble vegetable protein can be isolated by ways other than the method as claimed in Claims 28-32, such as by acidic denaturation or ultrafiltration, which, as stated by Applicant in the instant specification, are other suitable methods for isolating the protein and are distinct from a thermal coagulation method (see Applicant's specification, Page 6, lines 20-25).

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3. Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, Claims 28-32 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03. Also see MPEP 818.02 (a).

***Claim Rejections - 35 USC § 102/Claim Rejections - 35 USC § 103***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**8. Claims 1, 4, 5, 7, and 11-13 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Jensen U.S. Patent No. 6,306,447).**

9. Regarding Claims 1, 4 and 7, Jensen teaches a batter composition (Column 4, lines 1-5), comprising insoluble vegetable protein such as soy protein and also teaches protein from a cereal such as barley proteins, oat proteins, rice proteins, wherein such proteins are isolated from their source because Jensen teaches the proteins themselves, and are insoluble in light of Claim 7. Jensen further teaches insoluble dietary fibers because Jensen teaches potato fiber (Column 4, line 40), which is also isolated from its source because Jensen teaches the fiber itself and is insoluble in light of Claim 4.

10. Regarding amended Claim 1 and the limitation of the insoluble vegetable protein obtained by thermal coagulation, Applicants' Claim 1 is written in a product-by-process format and as such, it is the novelty of the instantly claimed product that needs to be

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established and not that of the recited process steps. In re Brown, 173 USPQ 685 (CCPA 1972); In re Wertheim, 191 USPQ (CCPA 1976). Regarding Claim 1, since the product shown by this reference is an insoluble vegetable protein, the product is met.

11. It is also noted that since Applicant discloses in the instant specification that the protein may be obtained in any way from the vegetable source, such as by acidic denaturation, thermal coagulation, ultrafiltration, or other methods, it is submitted by the Examiner that the process for obtaining the insoluble vegetable protein is not critical and it would have been obvious to one of ordinary skill in the art to use any known process for obtaining the claimed insoluble vegetable protein.

12. Regarding Claim 5, Jensen further teaches gums and pectin (Column 5, lines 38-43).

13. Regarding Claims 11-13, Jensen teaches sugars and salts which are flavors (Column 5, lines 25-27) and further teaches dietary fiber from a tuber in view of the teaching of potato fiber and teaches insoluble vegetable proteins from soy (see rejection of Claim 1 above).

### ***Claim Rejections - 35 USC § 103***

14. **Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jensen U.S. Patent No. 6,306,447).**

15. Regarding Claim 6, since Jensen teaches the claimed insoluble vegetable protein and teaches insoluble dietary fibers, it would be expected that the solubility of the protein and/or fiber in water at a temperature of 20C is 10 wt% or less, based upon

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the total weight of the solution because since Jensen teaches the claimed protein and fiber in the claimed composition, the components will react or co-act in the same manner as claimed by Applicant, and therefore, the properties of these components will necessarily be present because a component and its properties are inseparable.

Therefore, if the components are present, their properties would also be necessarily present. See *In re: Papesch* and *In re: Antonie* and MPEP 2141.02 V.

**16. Claims 1, 4-9, 11-21, and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bengtsson et al. (U.S. Patent No. 4,272,553) in view of Landon (Australian Patent Application No. 54821/90), both previously made of record.**

17. Regarding Claims 1, 4, 7, 12, 13, 15, 18, 19, Bengtsson teaches a batter composition for coating vegetables comprising insoluble dietary fibers because Bengtsson teaches a coating composition comprising potato fiber (Column 2, lines 27-41, Column 3, lines 63-64 and Column 4, lines 3-7), which is considered an insoluble dietary fiber in light of Claim 4 and is considered isolated from its source because Bengtsson teaches potato fiber itself, with the coating composition being considered a batter because Bengtsson teaches a process wherein the coating is applied directly to the food product and in view of Applicants disclosure of the batter composition which comprises comparable ingredients (see Applicant's specification, Page 9, Example 1). Bengtsson teaches that the batter/coating comprises soy or other oil seed flours and protein concentrate or isolate from various raw materials (Column 2, lines 35-36) but does not specifically teach insoluble vegetable protein. Therefore, Bengtsson teaches proteins isolated from its source of raw materials.

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18. Landon teaches a batter composition for coating vegetables (Page 3, lines 30-34), comprising a filling agent in the form of casein or soya milk proteins or soya protein (Page 5, lines 1-5), where soya milk protein or soya proteins are considered insoluble vegetable protein in light of Claim 7 and casein is considered an insoluble dairy protein in light of original Claim 2. Landon teaches that soya protein is typically used in the batter (Page 5, lines 5-6). Landon teaches proteins isolated from their sources because Landon teaches the proteins themselves.

19. Therefore, it would have been obvious to one of ordinary skill in the art at the time that the invention was made, for the batter composition of Bengtsson to have comprised an insoluble dairy or vegetable protein isolated from its sources such as soy protein or casein, because Landon teaches that such insoluble protein sources are suitable for use in batters used for coating vegetables and teaches soy protein is typically used in such a batter. One of ordinary skill in the art at the time would have been motivated by Landon to incorporate protein sources such as soy protein or casein into batter compositions as the protein isolates in order to provide suitable batter compositions for vegetables.

20. Regarding Claim 5, Bengtsson in view of Landon teach a dietary fiber source of gums and pectins (see Bengtsson, Column 2, line 38).

21. Regarding Claim 6, since Bengtsson in view of Landon teach the claimed insoluble dietary fiber and the claimed protein, the solubility of the insoluble dietary fiber and/or protein in water at pH of 7 at a temperature of 20°C would be expected to be 10 wt % or less, based upon the total weight of the solution because it has been found that



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since Bengtsson in view of Landon teaches the insoluble dietary fiber and protein in a coating or batter composition that is the same as that claimed by Applicant, the component or dietary fiber will react or co-act in the same manner as claimed by Applicant and therefore, the properties of these components will necessarily be present because a component and its properties are inseparable. Therefore, if the components are present, their properties would also be necessarily present. See *In re: Papesch* and *In re: Antonie* as cited in MPEP 2141.02 V.

22. Regarding Claims 8, 9 and 14, Bengtsson in view of Landon teach a variety of components used in the batter/coating composition and teach that these different substances can be used alone or in different combinations (see Bengtsson, Column 2, lines 38-40) and teach potato components such as potato granules or flakes, potato fibers, etc. and teach combinations of potato granules and wheat flour in a proportion of 50-90% potato granules and 10-50% wheat flour and teach other combinations of 20% corn flake crumbs, 50% wheat flour and 30% potato granules by weight (see Bengtsson Column 2, lines 34-35, 50-60). Bengtsson in view of Landon further teach that besides the main components of the coatings mentioned above, small amounts of reducing sugar may be added in order to modify the color of the coating during frying and salt may also be added as desired (see Bengtsson, Column 2, lines 60-65). Therefore, Bengtsson teaches that the main components such as the potato fibers and protein isolates are in higher concentration than other minor components such as sugars and salt. In addition, Landon teaches that the filling agent which can be a wheat flour,

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casein, soya protein, or soya milk protein, etc. is present in an amount of 2-30% by weight of the batter (Page 3, lines 13, Page 4, lines 36-37 and Page 5, lines 1-5).

23. Therefore, it would have been obvious to one of ordinary skill in the art at the time that the invention was made, to optimize and maximize the amount of fibers and insoluble proteins to be at least 1% by weight based on the total dry weight and to have the other ingredients be 95 wt % or less, while keeping the fibers and protein isolates as main components of the batter or coating and in keeping with Landon who teaches that insoluble proteins are present in the batter in an amount of 2-30% by weight. One of ordinary skill in the art would have been motivated to optimize the amount of the fibers and proteins in the batter depending on the texture, flavor and baking or frying properties desired in the final coated food product. Furthermore, given the teachings of the prior art, it would have been within the skill of one of ordinary skill in the food art to modify the batter composition according to the functionality of the components chosen in the batter.

24. Regarding Claim 11, Bengtsson in view of Landon teach reducing sugars and salts and further teach thickeners (see Bengtsson, Column 2, lines 37 and 60-65).

25. Regarding Claims 15, 17, 18 and 19, Bengtsson in view of Landon teach a coated food product, such as coated vegetables (see Bengtsson in the rejection of Claim 1), wherein at least a part of the surface of the food product comprises a batter composition and at least part of the surface comprising the batter composition comprises bread crumbs and further teach a method for preparing a coated food product comprising coating the food product with the composition, because Bengtsson

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in view of Landon teach that after cutting into pieces, the vegetables have exposed wet surfaces and to these a certain amount of dry coating will adhere (see Bengtsson, Column 2, lines 66-68). Bengtsson in view of Landon further teach that the coating composition can also comprise bread crumbs (see Bengtsson, Column 2, line 36) and further teach coating mixtures comprising bread crumbs (see Bengtsson Column 7, lines 25-30) applied to the food products. In addition, Landon further teaches that the battered food product can be crumbed with bread crumbs prior to frying (see Landon, Page 3, lines 22-23).

26. Regarding Claim 16, Bengtsson in view of Landon teach that after coating and frying, the pieces are drained and frozen in a conventional manner (see Bengtsson, Column 3, lines 4-8 and 63-64).

27. Regarding Claim 20, Bengtsson in view of Landon are taken as cited above in the rejection of Claim 1 and teach a process which comprises mixing ingredients comprising at least one component of insoluble vegetable protein and insoluble dietary fibers (see rejection of Claim 1 and Bengtsson, Column 2, lines 30-40).

28. Regarding Claims 21, and 25-26, Bengtsson in view of Landon are taken as cited above in the rejection of Claim 15 and teach that the frozen fried product may be reheated in an oven, in oil or by pan frying and that one of the advantages is that a very crispy surface is obtained irrespective of the reheating method used (see Bengtsson, Column 4, lines 3-7), wherein oven cooking is synonymous with baking. Therefore, Bengtsson in view of Landon also teach a method for imparting a crispy texture to a microwaved and/or oven baked food comprising coating said food with a batter

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composition comprising at least one component of insoluble vegetable protein and insoluble dietary fibers and wherein the insoluble dietary fiber is potato fiber (see rejections of Claims 1 and 15).

29. Regarding Claim 27, Bengtsson in view of Landon are taken as cited above in the rejection of Claim 25 and since Bengtsson in view of Landon teach the claimed protein, the solubility of the protein in water at pH of 7 at a temperature of 20°C would be reasonably expected to be 10 wt % or less, based upon the total weight of the solution because it has been found that since Bengtsson in view of Landon teaches protein in a coating or batter composition that is the same as that claimed by Applicant, the component will react or co-act in the same manner as claimed by Applicant and therefore, the properties of these components will necessarily be present because a component and its properties are inseparable. Therefore, if the components are present, their properties would also be necessarily present. See *In re: Papesch* and *In re: Antonie* and MPEP 2141.02 V.

### ***Response to Arguments***

30. The 112 2<sup>nd</sup> rejection set forth in the office action mailed on 6/2/2010 has been withdrawn in light of Applicant's amendment.

31. The 35 U.S.C. 102(b) rejection of Claim 2 has been withdrawn in light of Applicant's amendments, and the 35 U.S.C. 102(b) rejection of Claims 1, 4, 5, 7 and 11-13 has been withdrawn and replaced with a 102/103 rejection in light of the amendment to Claim 1.

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32. Applicant's arguments filed 9/2/2010 have been fully considered but they are not persuasive because the limitation of Claim 1 is a product by process limitation, and as stated above in the rejection of amended Claim 1, it is the novelty of the instantly claimed product that needs to be established and not that of the recited process steps. Therefore, the rejection previously made of record has been maintained and is deemed proper.

### ***Conclusion***

33. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jenna A. Watts whose telephone number is (571) 270-7368. The examiner can normally be reached on Monday-Friday 9am-5:00pm.

34. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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35. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. SAYALA/  
Primary Examiner, Art Unit 1781

/Jenna A. Watts/  
Examiner, Art Unit 1781  
October 20, 2010